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Record-Courier - Online

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Published: December 12, 2012 4:00AM

Garrettsville Board of Public Affairs wishes to thank JD Environmental Consulting LLC for its presentation to participants in the Garrettsville Water Monitoring Program, their families and friends. BPA contracted with JD Environmental Consulting to establish this program.

Dr. Jeffrey Dick, chief geologist, explained the unconventional hydraulic fracturing technology that is being used to extract natural gas from Utica and Point Pleasant shale. He expressed his concern regarding surface spills, accidents and leaks at drill sites, pipelines and Class II injection wells. Such surface spills have the potential to contaminate underground water aquifers.

Anna Draa, project geologist, mapped the underground geology around Garrettsville and the village's water wells. She explained that the main influx of underground water into the village's water wells comes from Nelson and Hiram townships north and west of the village. Private water well owners in those areas are contracted with BPA as monitoring sites, and are tested regularly by the Portage County Health Department. Contamination detected at these water wells would give BPA time to respond and remediate the problem before village water wells would be affected.

The 16 water well owners currently in the program are along S.R. 82, Wheeler Road, S.R.305, Mills Road, S.R. 88 and Brosius Road. You will notice five signs in the area advising residents that they are in a "Drinking Water Protection Area" and to "Report Spills to 1-800-282-9378." Water from this area flows underground into the water aquifer that feeds the village water wells. If you see a spill of any kind, call this number to alert an Ohio EPA Emergency Response. Another call to 911 will also alert local officials to the area for a quick response.

Dr. Dick and Anna Draa will give a presentation to the public in Garrettsville in spring of 2013 when the results of their study is complete.

BPA thanks Ohio EPA, Portage Health Department, the private water well owners, and JD Environmental LLC for partnering to establish the Garrettsville Water Monitoring Program for our village's watershed.

Stephanie Byrne, Chris Knop, Fran Teresi, trustees

Garrettsville Board of Public Affairs

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Times - Online, The

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Dec 11, 2012

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President Obama likely will take the middle ground on environmental issues. Page 6D

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Opponents of drilling point to Colorado and say it's dangerous. Companies point to Texas and say drilling is safe.

The answer appears to be that drilling can be safe or dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

"It's like a vehicle. Some cars drip oil," said Russell Schnell, deputy director of the federal Earth System Research Laboratory in Boulder, Colo. "You have wells that are absolutely tight. And you have other places where a valve gives out, and you have huge leaks."

The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly that some companies and regulators can't seem to get ahead of the problems, which ultimately could cost billions of dollars to remedy.

The worries about what drilling does to the air are global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and natural gas but also has raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly; environmental groups and some scientists say there hasn't been enough research.

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much cleaner than coal, emitting half the carbon dioxide.

Al Gore told The Associated Press it's "not irresponsible" to look at natural gas as a short-term substitute for coal-fired electricity. But Gore added that the main component of natural gas, methane, is a more potent heat-trapping greenhouse gas than CO2. That means the advantage over coal disappears if large quantities leak, the former vice president said.

In Colorado, the National Oceanic and Atmospheric Administration estimated that 4 percent of methane was leaking from wells, far more than previously estimated, and that people who live near production areas may be exposed to worrisome levels of benzene and other toxic compounds present in oil and natural gas.

Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of construction.

"I think it's totally fixable," Schnell said. "At least the bigger companies, they are really on top of this."

When companies capture leaking methane, Gore added, they end up with more to sell. "So there's an economic incentive to capture it and stop the leaking."

Another major source of worry is the industry's practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. Over the past five years, the United States has increased the amount of flared and wasted natural gas more than any other nation, though Russia still burns off far more than any other country.

In some places, energy companies haven't invested in the infrastructure needed to capture and process the natural gas because the oil is more valuable.

In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren't enough pipelines yet to carry it away. The amount of natural gas wasted in that state is estimated at up to $100 million a year. And last month, officials in North Dakota said the situation there might not be completely solved until the end of the decade.

NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains, and especially in snowy areas.

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But NOAA researchers found that when there's heavy snowfall, the sun passes through the stew, then bounces off the snow and heats it again on the way back up. In some cases, smog in remote areas has spiked to levels higher than those in New York or Los Angeles.

In open regions that are more exposed to wind, the ozone vanishes, sometimes within hours or a day. But it can linger for weeks in Utah basins, Schnell said.

Evidence that air pollution from natural gas drilling can be managed but that more work still may need to be done comes from Texas, where the shale natural gas boom began around Fort Worth about 10 years ago. People complained about excessive pollution in the early years of the boom, said Mike Honeycutt, toxicology director for the Texas

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Commission on Environmental Quality. Regulators started using special handheld cameras to pinpoint pollution sources and found some sites with high levels of benzene and other volatile organic compounds.

"It was a maintenance issue," Honeycutt said. "They were in such a hurry and they were drilling so fast, they were not being as vigilant as they should have been. So we passed new rules that made them take more notice."

The cameras, which cost about $100,000 each, have revolutionized the way inspectors monitor sites, he said. Texas also has installed nine 24-hour air-monitoring stations in the drilling region around Fort Worth; more are on the way. Now summer ozone levels have declined even as drilling has increased, Honeycutt said.

In 1997 there were only a few hundred shale natural gas wells in the Fort Worth area. The summertime ozone level hit 104 parts per billion, far above the national standard then of 85. By 2012, the number of wells had risen to about 16,000. But preliminary results show the ozone level was 87 in the summer.

There's still room for improvement, Honeycutt said, but the trend is clear since the monitoring no longer is showing worrisome levels of benzene, either.

The Environmental Protection Agency (EPA) isn't completely convinced. This year, the federal agency cited Wise County, a heavy natural gas drilling area of Texas, for violating ozone standards. Industry groups and the state have argued that the finding was based on faulty science.

So far, NOAA scientists say they haven't found signs that natural gas or oil drilling is contributing to a global rise in methane. "Not the mid-latitudes where the drilling is being done, which is interesting," said James Butler, head of global monitoring for NOAA.

The EPA has passed new rules on oil and natural gas emissions that are scheduled to go into effect in 2015. And this year, the agency reached legal settlements that will require companies to spend more than $14 million on pollution controls in Utah and Wyoming. Meantime, Colorado, Texas and other states also have passed more stringent rules.

Many companies started developing the equipment to limit methane and other pollution before the EPA rule, noted Carlton Carroll, a spokesman for the American Petroleum Institute (API), a lobbying group for the oil and natural gas industry. "API is not opposed to controls on oil and gas operations so long as the controls are cost-effective, allow sufficient lead time and can be implemented safely," Carroll said in an email, adding that the industry has requested some technical clarifications to the rule and is working with the EPA on those.

Controlling natural gas drilling pollution is "technically solvable" but requires close attention by regulators, said Prasad Kasibhatla, a professor of environmental chemistry at Duke University. "One has to demonstrate that it is solved and monitored."

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Energy experts say safe gas drilling possible
Lansing State Journal -- Online, The

12/12/2012

It burns cleaner than coal, but side effects of capturing it are a concern

Scientists estimate that natural-gas wells in Colorado leak 4 percent of their gas, exposing people to benzene and other toxic compounds. / David Zalubowski / File / Associated Press

PITTSBURGH — In the Colorado mountains, a spike in air pollution has been linked to a boom in oil and gas drilling. A thousand miles away on the plains of north Texas, there s a drilling boom, too, but some air pollution levels have declined.

Opponents of drilling point to Colorado and say it s dangerous. Companies point to Texas and say drilling is safe. The answer appears to be that drilling can be safe or it can be dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

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The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn t been enough research.

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Another major source of worry is the industry s practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling.

In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren t enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year.

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President Obama likely will take the middle ground on environmental issues. Page 6D

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Who will lead for Obama on carbon and clean energy policy?
energybiz Insider

12/12/2012

Who will lead for Obama on carbon and clean energy policy?

Dec 11 - McClatchy/Tribune

As a stalemated Congress shies away from taking serious action on climate change, environmentalists are focusing on potential Cabinet openings at the Environmental Protection Agency and the Department of Energy that could further their efforts.

If the top jobs at the agencies open up as expected at the beginning of President Barack Obama's second term, the new leaders would step into the spotlight at a critical time. Recent scientific reports warn that polar ice sheets are melting at a rate three times faster than in the 1990s and methane emissions from melting permafrost could dramatically accelerate global warming. The Intergovernmental Panel on Climate Change's next report, due in 2013, will likely add to evidence that carbon emissions are causing Earth's climate to warm.

The EPA docket is already crowded with key environmental issues. The agency is expected to consider new regulations for coal-fired plants, smog and the controversial drilling process known as hydraulic fracturing. It also could weigh in on the Keystone XL pipeline.

The Energy Department, meanwhile, is trying to decide how to foster the nascent clean energy industry amid the political minefield left by the scandal over Solyndra, a failed solar company that received federal funding. A new energy secretary would have to be adept at fielding political questions and making the most of a much smaller pool of loans for renewable energy.

Neither EPA Administrator Lisa Jackson nor Energy Secretary Steven Chu has announced plans to leave, but Jackson is rumored to be on her way out, likely to return to her home state of New Jersey. Chu, having been put through the wringer during the Solyndra failure, is expected to go back to research and academic work in California.

Environmental groups are already preparing wish lists of potential successors, although it's still too early to know what the White House is thinking.

For the EPA, most expect an internal hire like deputy administrator Bob Perciasepe or Gina McCarthy, assistant administrator for the Office of Air and Radiation. The Department of Energy seems more likely to recruit an outsider, with former Sen. Byron Dorgan of North Dakota, former Michigan Gov. Jennifer Granholm or Duke Energy CEO and President Jim Rogers, who will retire at the end of next year, among the groups' top choices.

InsideClimate News talked to a half dozen organizations about what they see on the horizon for the two agencies and how the leading candidates might steer the White House towards more serious climate work.

"Climate change is an issue that the president has said is important and that he should see as part of his legacy," said Nat Keohane, vice president of the Environmental Defense Fund. "If there's any meaning to that, he's now got four more years to cement that legacy. ... This is the next big thing on his plate and this is part of his legacy."

In Obama's first term, the EPA was the largest -- and at times only -- driver of serious environmental work, although some green groups complain it could have moved faster and stronger. With a stack of unfinished and scheduled rules,

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environmentalists say the agency's agenda is likely set, although there's still room for it to get more aggressive.

"Despite some of the negative rhetoric directed at them, EPA has for the most part been doing what they're required to do by law," said Manik Roy, vice president of strategic outreach for the Center for Climate and Energy Solutions. "I'm not sure it's going to be all that different than it was during the first term. They'll do what was required under law and when they don't, people will sue to make it happen."

The agency's biggest achievement in Obama's first term was the passage of fuel economy standards for passenger vehicles through model year 2025, which are expected to slash 6 billion metric tons, greenhouse gas emissions from the atmosphere.

But two other significant rules saw delays, including long-awaited regulations that would limit greenhouse gas emissions from new power plants. The draft rule was released in March 2012.

In 2011, the administration delayed implementation of a rule limiting ground-level smog until 2013, a move that irked environmentalists -- and reportedly Jackson herself -- who say the rule is necessary for protecting public health. Most expect the review of the National Ambient Air Quality Standards for Ozone to be revived early in the second term, despite concerns about its high cost.

Greenhouse gas regulations for existing large power plants are also likely to be released, even though they will face even more opposition from industry.

Other EPA regulations that are set to be finalized include rules that would limit emissions from industrial boilers, reduce particulate matter and regulate cement makers. A report on the impacts of hydraulic fracturing on water, due in 2013, could lead to new regulations for the controversial process amid a national boom in natural gas production.

These regulations are more likely to be the crux of the government's environmental work than any broad legislative proposals, said Daniel Weiss, a senior fellow for energy and environment at the Center for American Progress.

"When asked about global warming, the president has said we have to work on the economy first," Weiss said. "That reflects this idea that they'll use non-legislative tools and focus on existing authority through the EPA. They've got a lot of unfinished business."

Many of the green groups would like the agency to be more aggressive now that it has been freed from election-year pressures.

That worries Nicolas Loris, an energy economist with the Heritage Foundation, a conservative think tank that has railed against the EPA rules.

"The incentives to cater to the economy and industry are gone," Loris said. "That could mean stronger regulations ... that are economically damaging. Some of the ones they've proposed are already the most stringent and unprecedented."

Last week the Natural Resources Defense Council issued a plan for EPA to use the Clean Air Act to impose tougher greenhouse gas emission standards on existing polluters that it said could cut carbon pollution by 26 percent by 2020. In a news release, NRDC executive director Peter Lehner said the plan -- which would set state-specific regulations rather than a national target -- shows "how the United States can make big reductions in carbon pollution that drive climate change."

With the agency's path largely set, most agree that Jackson's replacement would likely come from within the agency, so the agency can continue its work with minimal disruption.

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One of the most commonly mentioned names was Perciasepe, the EPA's current deputy administrator. As Jackson's second-in-command, Perciasepe was deeply involved in the agency's work during Obama's first term, including representing the agency several times in Congressional hearings. He also headed up the EPA's water and air quality departments under President Clinton and previously served as chief operating officer for the Audubon Society.

Also mentioned was McCarthy, assistant administrator for the Office of Air and Radiation, who led the drafting of the EPA's air quality regulations, including the greenhouse gas and fuel economy rules.

"They've been focused on trying to make efforts to reduce the threat of pollution during a severe economic downturn," Weiss said. "That's going to continue."

Another choice would be Mary Nichols, head of the California Air Resources Board. Nichols has managed the buildup to California's cap-and-trade program for greenhouse gas emissions and has been praised for making the Golden State a worldwide leader in environmental work.

But Nichols could face fierce opposition from the business community that sees cap and trade as an economic impediment. And some supporters say she might not even be interested in the job.

"To the extent that she wants to be in a position of global leadership on climate change, California has that right now," said Roy of the Center for Climate and Energy Solutions. "EPA isn't working to the extent that California is right now and it's hard for me to see her leaving without a greater mandate."

The Department of Energy, buoyed by $90 billion in economic stimulus money set aside for clean energy programs, expanded its scope in Obama's first term beyond its traditional research and development role.

But its work in clean energy financing also opened the department to accusations of cronyism from the right, topped by the Solyndra scandal. Republicans launched several Congressional investigations into the loans, had Chu testify before the House Oversight Committee and put the loan programs on the chopping block in House budgets.

Most agree that the new DOE secretary will need to have more political chops than Chu, a Nobel Prize-winning scientist, in order to withstand congressional investigations and negotiate with lawmakers to preserve funding for its clean energy investments. The green groups say the new secretary will have vast power to shape how the administration promotes clean energy.

"A lot of what happens at DOE depends on who the secretary is going to be," said CAP's Weiss.

Topping most lists is Dorgan, a Democrat who served on the Energy and Natural Resources Committee and chaired the budget subcommittee overseeing the Energy Department. In the Senate, Dorgan had a reputation for working across the aisle and was a champion of clean energy, although he also supported measures that would help his home state's oil and natural gas drilling industries.

Granholm would also bring political heft to the department, although her liberal leanings and her talk show on the progressive channel CurrentTV would make her a tough sell to Republicans. In two terms in the Michigan statehouse, Granholm made clean energy a priority. She attracted solar, wind and electric vehicle companies to the state to replace lost automotive jobs and oversaw passage of a Renewable Portfolio Standard mandating that 10 percent of the state's electricity come from renewable sources by 2015.

Other possible candidates include Washington Gov. Christine Gregoire, who has promoted renewable and nuclear energy in her home state, and John Podesta, former chief of staff for President Bill Clinton and CAP's current chair.

Weiss said it's also possible that Obama could select someone with business experience to head the department, a move that would signal the administration's intention to work with the electricity and industrial sector.

Several groups mentioned Rogers of Duke Energy as a possibility, given his close ties to the White House. Rogers, who recently announced his intention to leave the Charlotte, N.C., company in 2013, co-chaired the Democratic National Convention and has been a booster for Obama's renewable energy initiatives.

Whoever gets the job will have to deal effectively with Congress and the White House budget authors, who ultimately will determine how much money the department will have available to invest in renewables.

"I can't imagine an expansion of any kind of a loan guarantee program," said Loris of the Heritage Foundation. "Given our fiscal situation and some dissent about what the role of DOE is, I think that's an area that could be ripe for spending cuts."

David Foster, executive director of the BlueGreen Alliance, doesn't see the agency moving away from clean energy investments, given that clean energy has been "a powerful piece of the administration's success story."

But EDF's Keohane said there's plenty of room for the Energy Department to maneuver outside of the loan programs. The agency could continue to push energy efficiency standards for appliances or in the electric industry. It could also help craft rules and provide technical assistance as more states and localities eye smart grid technology.

If the loan program is slashed, Roy at the Center of Climate and Energy Solutions, expects the agency to focus on highlighting some of its successful loans and use them as a model to help make clean technology commercially feasible.

"The point of investing in a solar or an electric vehicle plant is not to help one plant advance, it's to get the technology further down the learning curve and cost curve," Roy said.

The agency also could focus on R&D through its national labs and the popular Advanced Research Projects Agency-Energy (ARPA-E) program, which supports high-risk energy technology projects.

Under the right leadership, Roy said, the Energy Department can play an important role for the White House by promoting both its climate and its economic messages.

"Can we get back to a point where the administration is arguing about the importance of clean energy? That's going to drive things as much as anything," Roy said. "There's room to talk more robustly about the economic future and the role of clean energy. We need to see a return to that."

(InsideClimate News is a nonprofit, non-partisan news organization that covers clean energy, carbon energy, nuclear energy and environmental science. More information is available at http://insideclimatenews.org/.)

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US energy experts say drilling can be made cleaner
Press & Sun-Bulletin - Online

12/11/2012

US energy experts say drilling can be made cleaner

2:23 PM,

Dec 10, 2012

Related Links

PITTSBURGH - In the Colorado mountains, a spike in air pollution has been linked to a boom in oil and gas drilling. On the plains of north Texas, there s a drilling boom, too, but some air pollution levels have declined. Opponents of drilling point to Colorado and say it s dangerous. Companies point to Texas and say drilling is safe.

The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly in the U.S. that some companies and some regulators can t seem to get ahead of the problems, which could ultimately cost billions of dollars to remedy.

The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

It s like a vehicle. Some cars drip oil, said Russell Schnell, deputy director of the U.S. Earth System Research Laboratory. You have wells that are absolutely tight. And you have other places where a valve gives out, and you have huge leaks.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn t been enough research.

Some environmentalists say if leaks and pollution can be minimized, the boom has benefits, since gas burns much cleaner than coal, emitting half the carbon dioxide.

Former Vice President Al Gore told The Associated Press that it s not irresponsible to look at gas as a short-term substitute for coal-fired electricity. But Gore added that the main component of gas, methane, is a more potent heat-trapping greenhouse gas than carbon dioxide. That means that if large quantities leak, the advantage over coal disappears, he said.

In Colorado, the National Oceanic and Atmospheric Administration estimated that 4 percent of methane was leaking from

wells, far more than previously estimated, and that people who live near production areas may be exposed to worrisome levels of benzene and other toxic compounds present in oil and gas.

So far, NOAA scientists say they haven t found signs that gas or oil drilling is contributing to a global rise in methane.

Not the mid-latitudes where the drilling is being done, which is interesting, said James Butler, head of global monitoring for NOAA.

Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of new construction.

I think it s totally fixable, Schnell said. At least the bigger companies, they are really on top of this.

Gore added that when companies capture leaking methane, they end up with more to sell. So there s an economic incentive to capture it and stop the leaking, he said.

Another major source of worry is the industry s practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. Over the past five years, the U.S. has increased the amount of flared and wasted gas more than any other nation, though Russia still burns off far more than any other country.

In some places, energy companies haven t invested in the infrastructure needed to capture and process the gas because the oil is more valuable.

In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren t enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year. Officials in North Dakota said last month that the situation there might not be completely solved until the end of the decade.

NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains and especially in snowy areas.

Ozone, the main component in smog, typically forms when sunlight cooks a low-lying stew of chemicals such as benzene and engine exhaust. Normally, the process doesn t happen in cold weather.

But NOAA researchers found that when there s heavy snowfall, the sun passes through the stew, then bounces off the snow and heats it again on the way back up. In some cases, smog in remote areas has spiked to levels higher than those in New York or Los Angeles.

In open regions that are more exposed to wind, the ozone vanishes, sometimes within hours or a day. But in Utah basins it can linger for weeks, Schnell said.

Evidence that gas drilling air pollution can be managed but that more work may still need to be done comes from north Texas, where the shale gas boom began about 10 years ago.

Mike Honeycutt, director of toxicology for the Texas Commission on Environmental Quality, said that in the early years of the boom, people complained about excessive pollution. Regulators started using special hand-held cameras to pinpoint pollution sources and found some sites with high levels of benzene and other volatile organic compounds.

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It was a maintenance issue. They were in such a hurry, and they were drilling so fast, they were not being as vigilant as they should have been, Honeycutt said. So we passed new rules that made them take more notice.

Honeycutt said the cameras, which cost about $100,000 each, have revolutionized the way inspectors monitor sites. Texas has also installed nine 24-hour air monitoring stations in the drilling region around Fort Worth, and more are on the way. Now, he said, even as drilling has increased, summer ozone levels have declined.

In 1997 there were only a few hundred shale gas wells in the Fort Worth area and the summertime ozone level hit 104 parts per billion, far above the national standard then of 85. By 2012 the number of wells had risen to about 16,000, but preliminary results show the ozone level was 87 last summer.

There s still room for improvement, Honeycutt said, but the trend is clear, since the monitoring is no longer showing worrisome levels of benzene.

The Environmental Protection Agency isn t completely convinced. This year, the federal agency cited Wise County in north Texas, a heavy gas drilling area, for violating ozone standards. Industry groups and the state have argued that the finding was based on faulty science.

The EPA has passed new rules on oil and gas emissions that are scheduled to go into effect in 2015, and in 2012 it reached legal settlements that will require companies to spend more than $14 million on pollution controls in Utah and Wyoming. Colorado, Texas and other states have passed more stringent rules, too.

Carlton Carroll, a spokesman for the American Petroleum Institute, a lobbying group for the oil and gas industry, pointed out that many companies started developing the equipment to limit methane and other pollution before the EPA rule.

API is not opposed to controls on oil and gas operations so long as the controls are cost-effective, allow sufficient lead time and can be implemented safely, Carroll said in an email, adding that the industry has requested some technical clarifications to the rule and is working with the EPA on those.

Prasad Kasibhatla, a professor of environmental chemistry at Duke University, said that controlling gas drilling pollution is technically solvable but requires close attention by regulators.

One has to demonstrate that it is solved, and monitored, he said.

More In Local News

EPA & Hydraulic Fracturing - Dec. 11 & 12

EPA Aquifer Exemptions For Injection Wells May Threaten Underground Drinking Water Supplies
Huffington Post, The

12/11/2012

ProPublica's Abrahm Lustgarten reports:

Federal officials have given energy and mining companies permission to pollute aquifers in more than 1,500 places across the country, releasing toxic material into underground reservoirs that help supply more than half of the nation's drinking water.

In many cases, the Environmental Protection Agency has granted these so-called aquifer exemptions in Western states now stricken by drought and increasingly desperate for water.

EPA records show that portions of at least 100 drinking water aquifers have been written off because exemptions have allowed them to be used as dumping grounds.

"You are sacrificing these aquifers," said Mark Williams, a hydrologist at the University of Colorado and a member of a National Science Foundation team studying the effects of energy development on the environment. "By definition, you are putting pollution into them. ... If you are looking 50 to 100 years down the road, this is not a good way to go."

As part of an investigation into the threat to water supplies from underground injection of waste, ProPublica set out to identify which aquifers have been polluted.

We found the EPA has not even kept track of exactly how many exemptions it has issued, where they are, or whom they might affect.

What records the agency was able to supply under the Freedom of Information Act show that exemptions are often issued in apparent conflict with the EPA's mandate to protect waters that may be used for drinking.

Though hundreds of exemptions are for lower-quality water of questionable use, many allow grantees to contaminate water so pure it would barely need filtration, or that is treatable using modern technology.

The EPA is only supposed to issue exemptions if aquifers are too remote, too dirty, or too deep to supply affordable drinking water. Applicants must persuade the government that the water is not being used as drinking water and that it never will be.

Sometimes, however, the agency has issued permits for portions of reservoirs that are in use, assuming contaminants will stay within the finite area exempted.

In Wyoming, people are drawing on the same water source for drinking, irrigation and livestock that, about a mile away, is being fouled with federal permission. In Texas, EPA officials are evaluating an exemption for a uranium mine — already approved by the state — even though numerous homes draw water from just outside the underground boundaries outlined in the mining company's application.

The EPA declined repeated requests for interviews for this story, but sent a written response saying exemptions have been issued responsibly, under a process that ensures contaminants remain confined.

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"Aquifer Exemptions identify those waters that do not currently serve as a source of drinking water and will not serve as a source of drinking water in the future and, thus, do not need to be protected," an EPA spokesperson wrote in an email statement. "The process of exempting aquifers includes steps that minimize the possibility that future drinking water supplies are endangered."

Yet EPA officials say the agency has quietly assembled an unofficial internal task force to re-evaluate its aquifer exemption policies. The agency's spokesperson declined to give details on the group's work, but insiders say it is attempting to inventory exemptions and to determine whether aquifers should go unprotected in the future, with the value of water rising along with demand for exemptions closer to areas where people live.

Advances in geological sciences have deepened regulators' concerns about exemptions, challenging the notion that waste injected underground will stay inside the tightly drawn boundaries of the exempted areas.

"What they don't often consider is whether that waste will flow outside that zone of influence over time, and there is no doubt that it will," said Mike Wireman, a senior hydrologist with the EPA who has worked with the World Bank on global water supply issues. "Over decades, that water could discharge into a stream. It could seep into a well. If you are a rancher out there and you want to put a well in, it's difficult to find out if there is an exempted aquifer underneath your property."

Aquifer exemptions are a little-known aspect of the government's Underground Injection Control program, which is designed to protect water supplies from the underground disposal of waste.

The Safe Drinking Water Act explicitly prohibits injection into a source of drinking water, and requires precautions to ensure that oil and gas and disposal wells that run through them are carefully engineered not to leak.

Areas covered by exemptions are stripped of some of these protections, however. Waste can be discarded into them freely, and wells that run through them need not meet all standards used to prevent pollution. In many cases, no water monitoring or long-term study is required.

The recent surge in domestic drilling and rush for uranium has brought a spike in exemption applications, as well as political pressure not to block or delay them, EPA officials told ProPublica.

"The energy policy in the U.S is keeping this from happening because right now nobody — nobody — wants to interfere with the development of oil and gas or uranium," said a senior EPA employee who declined to be identified because of the sensitivity of the subject. "The political pressure is huge not to slow that down."

Many of the exemption permits, records show, have been issued in regions where water is needed most and where intense political debates are underway to decide how to fairly allocate limited water resources.

In drought-stricken Texas, communities are looking to treat brackish aquifers beneath the surface because they have run out of better options and several cities, including San Antonio and El Paso, are considering whether to build new desalinization plants for as much as $100 million apiece.

And yet environmental officials have granted more than 50 exemptions for waste disposal and uranium mining in Texas, records show. The most recent was issued in September.

The Texas Railroad Commission, the state agency that regulates oil and gas drilling, said it issued additional exemptions, covering large swaths of aquifers underlying the state, when it brought its rules into compliance with the federal Safe Drinking Water Act in 1982. This was in large part because officials viewed them as oil reservoirs and thought they were already contaminated. But it is unclear where, and how extensive, those exemptions are.

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EPA "Region VI received a road map — yes, the kind they used to give free at gas stations — with the aquifers delineated, with no detail on depth," said Mario Salazar, a former EPA project engineer who worked with the underground injection program for 25 years and oversaw the approval of Texas' program, in an email.

In California, where nearly half of the nation's fruits and vegetables are grown with water from as far away as the Colorado River, the perennially cash-strapped state's governor is proposing to spend $14 billion to divert more of the Sacramento River from the north to the south. Near Bakersfield, a private project is underway to build a water bank, essentially an artificial aquifer.

Still, more than 100 exemptions for natural aquifers have been granted in California, some to dispose of drilling and fracking waste in the state's driest parts. Though most date back to the 1980s, the most recent exemption was approved in 2009 in Kern County, an agricultural heartland that is the epicenter of some of the state's most volatile rivalries over water.

The balance is even more delicate in Colorado. Growth in the Denver metro area has been stubbornly restrained not by available land, but by the limits of aquifers that have been drawn down by as much as 300 vertical feet. Much of Eastern Colorado's water has long been piped underneath the Continental Divide and, until recently, the region was mulling a $3 billion plan to build a pipeline to bring water hundreds of miles from western Wyoming.

Along with Wyoming, Montana and Utah, however, Colorado has sacrificed more of its aquifer resources than any other part of the country.

More than 1,100 aquifer exemptions have been approved by the EPA's Rocky Mountain regional office, according to a list the agency provided to ProPublica. Many of them are relatively shallow and some are in the same geologic formations containing aquifers relied on by Denver metro residents, though the boundaries are several hundred miles away. More than a dozen exemptions are in waters that might not even need to be treated in order to drink.

"It's short-sighted," said Tom Curtis, the deputy executive director of the American Water Works Association, an international non-governmental drinking water organization. "It's something that future generations may question."

To the resource industries, aquifer exemptions are essential. Oil and gas drilling waste has to go somewhere and in certain parts of the country, there are few alternatives to injecting it into porous rock that also contains water, drilling companies say. In many places, the same layers of rock that contain oil or gas also contain water, and that water is likely to already contain pollutants such as benzene from the natural hydrocarbons within it.

Similarly, the uranium mining industry works by prompting chemical reactions that separate out minerals within the aquifers themselves; the mining can't happen without the pollution.

When regulations governing waste injection were written in the 1980s to protect underground water reserves, industry sought the exemptions as a compromise. The intent was to acknowledge that many deep waters might not be worth protecting even though they technically met the definition of drinking water.

"The concept of aquifer exemptions was something that we 'invented' to address comments when the regulations were first proposed," Salazar, the former EPA official, said. "There was never the intention to exempt aquifers just because they could contain, or would obviate, the development of a resource. Water was the resource that would be protected above all."

Since then, however, approving exemptions has become the norm. In an email, the EPA said that some exemption applications had been denied, but provided no details about how many or which ones. State regulators in Texas and

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Wyoming could not recall a single application that had been turned down and industry representatives said they had come to expect swift approval.

"Historically they have been fairly routinely granting aquifer exemptions," said Richard Clement, the chief executive of Powertech Uranium, which is currently seeking permits for new mining in South Dakota. "There has never been a case that I'm aware of that it has not been done."

Aquifer Exemptions Granted

The aquifer exemptions approved by the EPA each year are according to a partial list of approvals provided to ProPublica by the agency in response to a FOIA request. (Source: Environmental Protection Agency)

In 1981, shortly after the first exemption rules were set, the EPA lowered the bar for exemptions as part of settling a lawsuit filed by the American Petroleum Institute. Since then, the agency has issued permits for water not "reasonably expected" to be used for drinking. The original language allowed exemptions only for water that could never be used.

Oil companies have been the biggest users of aquifer exemptions by far. Most are held by smaller, independent companies, but Chevron, America's second-largest oil company, holds at least 28 aquifer exemptions. Exxon holds at least 14. In Wyoming, the Canadian oil giant EnCana, currently embroiled in an investigation of water contamination related to fracking in the town of Pavillion, has been allowed to inject into aquifers at 38 sites.

Once an exemption is issued, it's all but permanent; none have ever been reversed. Permits dictate how much material companies can inject and where, but impose little or no obligations to protect the surrounding water if it has been exempted. The EPA and state environmental agencies require applicants to assess the quality of reservoirs and to do some basic modeling to show where contaminants should end up. But in most cases there is no obligation, for example, to track what has been put into the earth or — except in the case of the uranium mines — to monitor where it does end up.

The biggest problem now, experts say, is that the EPA's criteria for evaluating applications are outdated. The rules — last revised nearly three decades ago — haven't adapted to improving water treatment technology and don't reflect the changing value and scarcity of fresh water.

Aquifers once considered unusable can now be processed for drinking water at a reasonable price.

The law defines an underground source of drinking water as any water that has less than 10,000 parts per million of what are called Total Dissolved Solids, a standard measure of water quality, but historically, water with more than 3,000 TDS has been dismissed as too poor for drinking. It also has been taken for granted that, in most places, the deeper the aquifer — say, below about 2,000 feet — the higher the TDS and the less salvageable the water.

Yet today, Texas towns are treating water that has as high as 4,000 TDS and a Wyoming town is pumping from 8,500 feet deep, thousands of feet below aquifers that the EPA has determined were too far underground to ever produce useable water.

"You can just about treat anything nowadays," said Jorge Arroyo, an engineer and director of innovative water technologies at the Texas Water Development Board, which advises the state on groundwater management. Arroyo said he was unaware that so many Texas aquifers had been exempted, and that it would be feasible to treat many of them. Regarding the exemptions, he said, "With the advent of technology to treat some of this water, I think this is a prudent time to reconsider whether we allow them."

Now, as commercial crops wilt in the dry heat and winds rip the dust loose from American prairies, questions are

mounting about whether the EPA should continue to grant exemptions going forward.

"Unless someone can build a clear case that this water cannot be used — we need to keep our groundwater clean," said Al Armendariz, a former regional administrator for the EPA's South Central region who now works with the Sierra Club. "We shouldn't be exempting aquifers unless we have no other choice. We should only exempt the aquifer if we are sure we are never going to use the water again."

Still, skeptics say fewer exemptions are unlikely, despite rising concern about them within the EPA, as the demand for space underground continues to grow. Long-term plans to slow climate change and clean up coal by sequestering carbon dioxide underground, for example, could further endanger aquifers, causing chemical reactions that lead to water contamination.

"Everyone wants clean water and everyone wants clean energy," said Richard Healy, a geologist with the U.S. Geological Survey whose work is focused on the nexus of energy production and water. "Energy development can occur very quickly because there is a lot of money involved. Environmental studies take longer."

Also on HuffPost:

State Lawmakers And Environmental Activists Express Opposition To Hydro Fracking

NEW YORK, NY - JANUARY 11: Opponents of hydraulic fracturing in New York state attend a news conference and rally against hydraulic fracturing, also known as fracking, on January 11, 2012 in New York City. The event, which was held on the steps of City Hall, called for an end to the controversial gas drilling method as environmental groups increasingly warn about contamination of the state's aquifers that could poison its drinking water. (Photo by Spencer Platt/Getty Images)

State Lawmakers And Environmental Activists Express Opposition To Hydro Fracking

NEW YORK, NY - JANUARY 11: Eric Weltman of Food & Water Watch attends a news conference and rally against hydraulic fracturing, also known as fracking, in New York State on January 11, 2012 in New York City. The event, which was held on the steps of City Hall, called for an end to the controversial gas drilling method as environmental groups increasingly warn about contamination of the state's aquifers that could poison its drinking water. (Photo by Spencer Platt/Getty Images)

Department Of Environmental Conservation Holds Hydro Fracking Hearing

NEW YORK, NY - NOVEMBER 30: Opponents and supporters of gas-drilling, or fracking, walk into the last of four public hearings on proposed fracking regulations in upstate New York on November 30, 2011 in New York City. Fracking, a process that injects millions of gallons of chemical mixed water into a well in order to release gas, has become a contentious issue in New York as critics of the process belive it contaminates drinking water among other hazards. NewYork City gets much of its drinking water from upstate reservoirs. If the regulations are approved, drilling in the upstate New York Marcellus Shale could begin next year. (Photo by Spencer Platt/Getty Images)

Cuadrilla Shale Fracking Plant

PRESTON, LANCASHIRE - OCTOBER 07: Engineers on the drilling platform of the Cuadrilla shale fracking facility on October 7, 2012 in Preston, Lancashire. The controversial method of extracting gas by pumping high pressure water and chemicals into shale formations deep underground has been blamed for two minor earthquakes in the surrounding region. Environmental campaigners are calling for a halt to the drilling of what Cuadrilla believe could be significant reserves of natural gas. (Photo by Matthew Lloyd/Getty Images)

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Cuadrilla Shale Fracking Plant

PRESTON, LANCASHIRE - OCTOBER 07: Engineers at work on the drilling platform of the Cuadrilla shale fracking facility on October 7, 2012 in Preston, Lancashire. The controversial method of extracting gas by pumping high pressure water and chemicals into shale formations deep underground has been blamed for two minor earthquakes in the surrounding region. Environmental campaigners are calling for a halt to the drilling of what Cuadrilla believe could be significant reserves of natural gas. (Photo by Matthew Lloyd/Getty Images)

Cuadrilla Shale Fracking Plant

PRESTON, LANCASHIRE - OCTOBER 07: General views of the Cuadrilla shale fracking facility on October 7, 2012 in Preston, Lancashire. The controversial method of extracting gas by pumping high pressure water and chemicals into shale formations deep underground has been blamed for two minor earthquakes in the surrounding region. Environmental campaigners are calling for a halt to the drilling of what Cuadrilla believe could be significant reserves of natural gas. (Photo by Matthew Lloyd/Getty Images)

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PRESTON, LANCASHIRE - OCTOBER 07: Engineers look at the Cuadrilla shale fracking facility on October 7, 2012 in Preston, Lancashire. The controversial method of extracting gas by pumping high pressure water and chemicals into shale formations deep underground has been blamed for two minor earthquakes in the surrounding region. Environmental campaigners are calling for a halt to the drilling of what Cuadrilla believe could be significant reserves of natural gas. (Photo by Matthew Lloyd/Getty Images)

Cuadrilla Shale Fracking Plant

PRESTON, LANCASHIRE - OCTOBER 07: A lump of shale rock on display at the Cuadrilla shale fracking facility on October 7, 2012 in Preston, Lancashire. The controversial method of extracting gas by pumping high pressure water and chemicals into shale formations deep underground has been blamed for two minor earthquakes in the surrounding region. Environmental campaigners are calling for a halt to the drilling of what Cuadrilla believe could be significant reserves of natural gas. (Photo by Matthew Lloyd/Getty Images)

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Cuadrilla Shale Fracking Plant

EPA & Hydraulic Fracturing - Dec. 11 & 12

PRESTON, LANCASHIRE - OCTOBER 07: Drill heads on display at the entrance to the Cuadrilla shale fracking facility on October 7, 2012 in Preston, Lancashire. The controversial method of extracting gas by pumping high pressure water and chemicals into shale formations deep underground has been blamed for two minor earthquakes in the surrounding region. Environmental campaigners are calling for a halt to the drilling of what Cuadrilla believe could be significant reserves of natural gas. (Photo by Matthew Lloyd/Getty Images)

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PRESTON, LANCASHIRE - OCTOBER 07: An engineer displays a lump of shale rock at the Cuadrilla shale fracking facility on October 7, 2012 in Preston, Lancashire. The controversial method of extracting gas by pumping high pressure water and chemicals into shale formations deep underground has been blamed for two minor earthquakes in the surrounding region. Environmental campaigners are calling for a halt to the drilling of what Cuadrilla believe could be significant reserves of natural gas. (Photo by Matthew Lloyd/Getty Images)

Hydraulic Fracturing Prevention Press Conference

NEW YORK, NY - APRIL 25: Actor/director Mark Ruffalo (C) speaks at the Hydraulic Fracturing prevention press conference urging the protection of the drinking water source of 15 million Americans at Foley Square on April 25, 2011 in New York City. (Photo by D Dipasupil/Getty Images)

Hydraulic Fracturing Prevention Press Conference

NEW YORK, NY - APRIL 25: (L-R) Actor/director Mark Ruffalo, Denise Katzman, Wenonah Hauter, and Water Defense co-founder/campaign director Claire Sandberg attend the Hydraulic Fracturing prevention press conference urging the protection of the drinking water source of 15 million Americans at Foley Square on April 25, 2011 in New York City. (Photo by D Dipasupil/Getty Images)

Josh Fox on Obama, the EPA, and House Republicans Who Had Him Arrested

HuffPost Green Editor Joanna Zelman talks to Josh Fox, director of the documentary 'Gasland,' about hydro-fracking, the EPA, and the House Republicans who had him arrested during a Congressional hearing.

Game Changer in Green: Mark Ruffalo

The expertise and the grassroots zeal Mark Ruffalo has brought to the issue of fracking is changing the game in green.

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Energy experts say drilling can be made cleaner
WAVE-TV - Online

12/11/2012

By By KEVIN BEGOS and SETH BORENSTEIN

Associated Press

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Encana calls on EPA to abandon Pavillion test wells
Billings Gazette

12/11/2012

CASPER, Wyo. — The company in the center of a groundwater contamination debate thinks the U.S. Environmental Protection Agency should abandon its monitoring wells near Pavillion and refocus its investigation.

Officials representing Encana Oil and Gas said on a conference call Thursday that the federal agency's investigation into whether natural gas production has contaminated groundwater in the Pavillion gas field is flawed and needs a clean start.

The call was scheduled two days before the one-year anniversary of an EPA report tentatively linking hydraulic fracturing to groundwater contamination east of Pavillion. During the call, company officials were critical of EPA methods used in the drilling, collection and sampling processes used by the agency to test local groundwater.

"The EPA should withdraw its draft report," said David Stewart, environmental, health and safety lead for Encana's Wyoming operations. "The data is inaccurate, and their conclusion is not supported by the data."

The agency didn't respond directly to the company's requests Thursday but issued a statement detailing its history in the Pavillion field. The agency added that it is accepting comments on the Pavillion investigation until Jan. 15 and that investigation data will be peer-reviewed.

The EPA drilled two monitoring wells in the Pavillion gas field in summer 2010 in response to complaints about local drinking water. The agency hoped to ascertain whether oil and gas development surrounding several rural homes east of Pavillion was the cause of contamination.

The agency released a draft report in December 2011 tentatively linking the industry's use of hydraulic fracturing, also known as fracking, to water contamination. Encana has criticized EPA's placement and depth of the wells, the methodology employed in drilling and the evidence cited by the EPA in its report.

The agency agreed to re-test the area this year after criticism from the state and Encana. The U.S. Geological Survey conducted the second test and released test data this fall, but without interpretation. Both the agency and Encana have since claimed that the newly gathered data back their opposing claims.

Encana said the focus of the investigation is one of the company's larger problems with what the EPA's done in the Pavillion area.

"This has been a misguided response," Stewart said.

Stewart said the agency drilled monitoring wells that were far too deep rather than following up on tests of domestic water wells, which Encana believes indicate the real problem in the gas field.

"Most wells sampled exceeded palatability criteria," he said. "Yet the EPA decided not to respond to or investigate or understand why those exceedances were occurring."

Stewart also questioned several "assumptions," which he said the EPA must have made while drafting its report. He said the agency's report indicates it used false information about water flow direction, a sign of failure to understand the geology of the field. According to Stewart, the agency drilled a monitoring well into one geologic formation which the company targeted.

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"Hydrocarbons have always been there," he said. "That's why we drilled there in the first place."

Stewart said the company hopes the agency will abandon its deep monitoring wells in the area and shift its attention back to domestic wells.

"Domestic well samples need to be looked at more from a bacterial standpoint, what's contributing to taste, odor and palatability problems," he said. "That was not done."

Data from the EPA and USGS tests in the area — which is several miles east of the town of Pavillion — is expected to be peer-reviewed sometime shortly after the public comment period closes in January.

Read more: http://billingsgazette.com/news/state-and-regional/wyoming/encan a-calls-on-epa-to-abandon-pavillion-test-wells/article_40e32548-b0b6-53ee-bc05-2a831068c4b9.html#ixzz2Emz 5VTzy

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Lincoln Daily News

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[Associated

Press ; By KEVIN BEGOS and SETH BORENSTEIN]

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Drilling Can be Cleaner
Laboratory Equipment - Online

12/11/2012

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Drilling Can be Cleaner

Tue, 12/11/2012 - 1:04pm

Associated Press, Kevin Begos, Seth Borenstein

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In the Colorado mountains, a spike in air pollution has been linked to a boom in oil and gas drilling. A thousand miles away on the plains of north Texas, there's a drilling boom, too, but some air pollution levels have declined. Opponents of drilling point to Colorado and say it's dangerous. Companies point to Texas and say drilling is safe.

The answer appears to be that drilling can be safe or it can be dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

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What Could Go Wrong for U.S. Energy in 2013?
Motley Fool, The

12/11/2012

We appear to be leaving 2012 amid an atmosphere of unusual tranquility for our domestic energy industry. With crude prices having remained relatively steady of late, natural gas levies sliding once again, and pain at the pump diminishing for drivers, it's as if we no longer have any significant energy woes to contend with.

Are we apt to sail through 2013 in a similarly uneventful state? Maybe, but also maybe not.

Stepping on the gas

For starters, as The Wall Street Journal noted not long ago, now that our quadrennial presidential election is behind us, it's hard to anticipate a perpetuation of the recent regulatory calm from the newly muscular Environmental Protection Agency. The Journal said in a late November opinion piece that "... EPA chief Lisa Jackson has the run of the place." One potential result noted by the paper could be the setting of greenhouse gas standards for planned new power plants at such a restrictive level that their construction will actually be thwarted.

Perhaps even more important from my perspective is the prospect that the agency will use next year to tighten the federal regulatory clamps on hydraulic fracturing, or fracking. This, of course, wouldn't be a new initiative. Back in April, when the EPA issued the final rule for fracking operations, it appeared sufficiently onerous from an industry perspective that the Washington, D.C.-based Institute for Energy Research said: "Once again, the Obama administration is using the (EPA) to execute its war on affordable energy."

As I've told Fools, there's a Hollywood flick about fracking called Promised Land waiting in the wings for release later this month. While I'm hardly certain that the Matt Damon film will take shots at the safety inherent in fracking, neither am I willing to bet many shekels that it won't. An anti-fracking tilt in theaters around the country would, of course, tend to invigorate those who believe that the EPA should push state-by-state regulation of fracturing aside and implement far more severe federal strictures in its place.

Unfortunately for those of us who believe that fracking warrants regulation -- albeit not at the federal level -- that's a creep that I expect to progress during the coming year anyway. It's also one that clearly wouldn't inure to the benefit of the likes of Chesapeake Energy (NYSE: CHK) , Halliburton (NYSE: HAL) and even ExxonMobil (NYSE: XOM) .

Pipeline's potential permit

Then there's the issue of either permitting or blocking the Keystone XL pipeline, which TransCanada (NYSE: TRP) would like to build to transfer crude from both the tar sands of Alberta and the Bakken Shale of North Dakota to refineries near the Gulf of Mexico. As you know, construction of the line has been blocked by the president, but, following the submission of a supposedly more environmentally palatable route, a new decision on whether to permit it is being awaited.

The betting is generally for an imprimatur for the line, but I'm not so sure. Environmental groups remain firmly "agin" it, and they continue to hold lots of sway with the administration. For now it's a wait-and-see issue for our citizenry and, frankly, for our relationship with our neighbors to the north.

A slippery slide

Beyond those two well-known issues, John Hofmeister, the erstwhile head of Royal Dutch Shell's (NYSE: RDS-B) U.S.

operations is less upbeat about the staying power of our positive energy circumstances. For starters, he's convinced that the energy industry is overly optimistic vis-a-vis the decline rates for shale fields. If he's right, our newly heightened unconventional oil and gas production will fall off faster than is expected. Indeed, we'd likely begin to see some evidence of this trend next year.

The obvious way to counter the steeper than anticipated falloff would be to drill significantly more wells than are currently projected. But Hofmeister points out that the industry currently has nowhere near the infrastructure to accommodate such increased drilling. In fact, he also says that we're lacking in a sufficiency of pipelines -- the pending decision on Keystone notwithstanding -- to transport crude efficiently from the fields to the refineries.

Foolish takeaway

These, of course, are all domestic considerations. They don't really take into account the current -- perhaps "unsettling" is a preferable term -- chaos in the Middle East and North Africa. Obviously, growing eruptions in such garden spots as Syria, Iran, Iraq, and Egypt could easily spread across the region and loft crude prices into the stratosphere. I'll talk about those geopolitical uncertainties in upcoming articles.

For now, despite our current calm relative to energy, there's at least a moderate possibility that 2013 could bring with it changed circumstances. On that basis alone, I urge Fools not to neglect energy companies as key components of their investment portfolios.

You'll note that Halliburton is mentioned in this article. Assuming a relative steadiness in the domestic oil and gas markets, investors would be wise to consider Halliburton, one of the top companies in the business, and one that is most in tune with the domestic market. To access The Motley Fool's new premium research report on this industry stalwart, simply click here now and learn everything you need to know about how Halliburton is positioning itself both at home and abroad.

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Salzman Op-Ed on Clean Water Act in Slate Magazine
www.duke.edu

12/11/2012

HOME / Science :

The state of the universe.

Why Rivers No Longer Burn

The Clean Water Act is one of the greatest successes in environmental law.

By James Salzman | Posted

Monday, Dec. 10, 2012, at 5:20 AM ET

The Cuyahoga River, "the river that caught fire"

Photo by Ken Lund/Flickr.

A river catches fire, so polluted that its waters have "no visible life, not even low forms such as leeches and sludge worms." This could describe the mythological River Styx from Hades. Residents of Cleveland, though, may recognize the government's assessment of their own Cuyahoga River in 1969. While hard to imagine today, discharging raw sewage and pollution into our harbors and rivers has been common practice for most of the nation's history, with devastating results. By the late 1960s, Lake Erie had become so polluted that Time magazine described it as dead. Bacteria levels in the Hudson River were 170 times above the safe limit.

I can attest to the state of the Charles River in Boston. While sailing in the 1970s, I capsized and had to be treated by a dermatologist for rashes caused by contact with the germ-laden waters. You can see the poor state of our waters for yourself in the iconic 1971 " Crying Indian " commercial.

In 1972, a landmark law reversed the course of this filthy tide. Today, four decades later, the Clean Water Act stands as one of the great success stories of environmental law. Supported by Republicans and Democrats alike, the act took a completely new approach to environmental protection. The law flatly stated there would be no discharge of pollutants from a point source (a pipe or ditch) into navigable waters without a permit. No more open sewers dumping crud into the local stream or bay. Permits would be issued by environmental officials and require the installation of the best available pollution-control technologies.

The waste flushed down drains and toilets needed a different approach, so the Clean Water Act provided for billions of dollars in grants to construct and upgrade publicly owned sewage-treatment works around the nation. To protect the lands that filter and purify water as it flows by, permits were also required for draining and filling wetlands.

Protecting our nation's waters may seem like common sense today, but the idea of nationally uniform, tough standards against polluters was both original and radical. Thinking big, the Clean Water Act's preamble declared that the nation's waters would be swimmable and fishable within a decade, with no discharges of pollutants within a dozen years. These weren't idle boasts.

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Remember a similarly bold claim in 1960 that the nation would land a man on the moon and return him safely within a decade? This was an age of technological optimism. Water pollution posed a national threat, and a national mission was necessary to turn back and clean the tide.

By many measures, the Clean Water Act has fulfilled the ambition of its drafters. The sewage discharges that were commonplace in the 1960s are rare. The number of waters meeting quality goals has roughly doubled. Once a convenient dumping ground for all manner of filth, rivers now represent an urban gem. Hartford, Conn.; Kansas City, Kan.; Cleveland; and other cities have based much of their redevelopment around their now clean and inviting waters, with waterfront parks and the lure of fishing and trails along the water's edge.

Sailing on the Charles River is no longer a hazardous pursuit, and thanks to a new treatment plant, the rejuvenated Boston Harbor is once more home to herring, porpoises, and seals. More people have access to safe drinking water from their taps than ever before.

But the glass is only half full, for major challenges remain. The EPA estimates that about half of our rivers and streams, one-third of lakes and ponds, and two-thirds of bays and estuaries are "impaired waters," in many cases not clean enough for fishing and swimming. These are big numbers. Given the successes described above, how has the Clean Water Act done so poorly despite doing so well?

Much of the answer lies in the law's narrow focus. We have made great progress in controlling industrial pipes that discharge waste, but other major sources remain largely unregulated. To gain sufficient congressional support from farm states in 1972, the Clean Water Act largely exempted runoff from agricultural fields and irrigation ditches. As a result, pesticides, manure, and other pollutants have flowed into streams, rivers, and eventually lakes and bays. To take the most frightening consequence, the Mississippi River basin, draining one-third of the country, empties nutrient-laden waters into the Gulf of Mexico. There, the aptly named " Dead Zone " regularly grows to 6,000 square miles or more, suffocating sea life that cannot swim away from its oxygen-starved waters. Storm-water runoff with oil and trash also threatens water quality around urban areas.

These "nonpoint" sources can be addressed, but they require enhanced authority to regulate farm practices and major funds to overhaul storm-water infrastructure. Neither seems an easy option in an era of a divided Congress and tight budgets.

And then there are threats that have emerged only in recent years. The bounty of natural gas made possible by hydraulic fracturing (fracking) may provide energy security, but it raises concerns about contamination of groundwater by methane and fracking fluids that may rise to the surface. The growth of the country's population and increased use of personal care products and medications pose their own challenges. Recent studies have identified more than 50 pharmaceuticals or their by-products in the drinking water of major metropolitan areas. Some of the contaminants included antibiotics, anti-anxiety drugs, and hormonal medications such as birth-control pills. The U.S. Geological Survey found 82 contaminants, most of them personal-care products and drugs, in 80 percent of the streams sampled in 30 states. These emerging contaminants are present in very low concentrations, parts per million or lower, and assessing their effects on human and ecosystem health challenges the outer bounds of toxicology.

When the Cuyahoga burst into flame in 1969, it was not a huge deal to locals. After all, the river had burned almost every decade over the previous century. Today, though, such an event seems inconceivable. As Bill Ruckelshaus, the administrator of the EPA at the time of the law's passage, later wryly observed, our waters may not yet be fishable or swimmable, but at least they're not flammable. There remains much unfinished business, but it is important to recognize the undeniable achievements of the Clean Water Act, particularly when the very role of government in environmental protection has been under challenge as never before.

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The Clean Water Act was not inevitable. It took vision and bipartisan commitment to create an entirely new way of thinking about environmental protection. Many forget that President Richard Nixon vetoed the Clean Water Act, concerned about the cost of funding treatment plants. The very next day, members of Congress on both sides of the aisle wasted no time coming together to override his veto. At a time of high-stakes partisan wrangling and gridlock, when no major environmental legislation has been passed for more than 20 years, the Clean Water Act's anniversary gives us cause both to celebrate and to consider whether some shared environmental benefits-clean air, clean water, open space-can once again transcend partisan differences.

James Salzman is a professor at Duke Law School and the Nicholas School of the Environment and the author of Drinking Water: A History .

MYSLATE

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Energy experts say gas drilling can be made safer
Springfield News-Leader - Online

12/11/2012

It burns cleaner than coal, but side effects of capturing it are a concern

Scientists estimate that natural-gas wells in Colorado leak 4 percent of the gas they're trying to capture, exposing people who live near the sites to worrisome levels of benzene and other toxic compounds. / David Zalubowski/AP

PITTSBURGH — In the Colorado mountains, a spike in air pollution has been linked to a boom in oil and gas drilling. A thousand miles away on the plains of north Texas, there s a drilling boom, too, but some air pollution levels have declined.

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The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

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In Colorado, the National Oceanic and Atmospheric Administration estimated that 4 percent of methane was leaking from wells and that people who live near production areas may be exposed to worrisome levels of benzene and other toxic compounds in oil and gas.

The EPA has passed new rules on oil and gas emissions that are scheduled to go into effect in 2015, and in 2012 it reached legal settlements that will require companies to spend more than $14 million on pollution controls in Utah and Wyoming. Colorado, Texas and other states have passed more stringent rules, too.

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Energy experts say oil/gas drilling can be made cleaner- petoskeynews.com Petoskey News-Review - Online

12/11/2012

Energy experts say oil/gas drilling can be made cleaner

gas drilling (December 11 , 2012)

Associated Press

Petoskey News-Review

8:44 a.m. EST , December 11, 2012

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In some places, energy companies haven't invested in the infrastructure needed to capture and process the gas because the oil is more valuable.

In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren't enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year. And officials in North Dakota said last month that the situation there might not be completely solved until the end of the decade.

NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains, and especially in snowy areas.

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But NOAA researchers found that when there's heavy snowfall, the sun passes through the stew, then bounces off the snow and heats it again on the way back up. In some cases, smog in remote areas has spiked to levels higher than those in New York or Los Angeles.

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Evidence that gas drilling air pollution can be managed - but that more work may still need to be done - comes from north Texas, where the shale gas boom began around Fort Worth about 10 years ago.

Mike Honeycutt, director of toxicology for the Texas Commission on Environmental Quality, said that in the early years of the boom, people complained about excessive pollution. Regulators started using special hand-held cameras to pinpoint pollution sources and found some sites with high levels of benzene and other volatile organic compounds.

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The Environmental Protection Agency isn't completely convinced. This year the federal agency cited Wise County in north Texas, a heavy gas drilling area, for violating ozone standards. Industry groups and the state have argued that the finding was based on faulty science.

So far, NOAA scientists say they haven't found signs that gas or oil drilling is contributing to a global rise in methane.

"Not the mid-latitudes where the drilling is being done, which is interesting," said James Butler, head of global monitoring for NOAA.

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Carlton Carroll, a spokesman for the American Petroleum Institute, a lobbying group for the oil and gas industry, pointed out that many companies started developing the equipment to limit methane and other pollution before the EPA rule.

"API is not opposed to controls on oil and gas operations so long as the controls are cost-effective, allow sufficient lead time and can be implemented safely," Carroll said in an email, adding that the industry has requested some technical clarifications to the rule and is working with EPA on those.

Prasad Kasibhatla, a professor of environmental chemistry at Duke University , said that controlling gas drilling pollution is "technically solvable" but requires close attention by regulators.

"One has to demonstrate that it is solved, and monitored," he said.

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Who will lead for Obama on carbon and clean energy policy?
Individual.com

12/11/2012

Who will lead for Obama on carbon and clean energy policy?

Jason Plautz

Dec 11, 2012 (InsideClimate News - McClatchy-Tribune News Service via COMTEX) --

As a stalemated Congress shies away from taking serious action on climate change, environmentalists are focusing on potential Cabinet openings at the Environmental Protection Agency and the Department of Energy that could further their efforts.

If the top jobs at the agencies open up as expected at the beginning of President Barack Obama's second term, the new leaders would step into the spotlight at a critical time. Recent scientific reports warn that polar ice sheets are melting at a rate three times faster than in the 1990s and methane emissions from melting permafrost could dramatically accelerate global warming. The Intergovernmental Panel on Climate Change's next report, due in 2013, will likely add to evidence that carbon emissions are causing Earth's climate to warm.

The EPA docket is already crowded with key environmental issues. The agency is expected to consider new regulations for coal-fired plants, smog and the controversial drilling process known as hydraulic fracturing. It also could weigh in on the Keystone XL pipeline.

The Energy Department, meanwhile, is trying to decide how to foster the nascent clean energy industry amid the political minefield left by the scandal over Solyndra, a failed solar company that received federal funding. A new energy secretary would have to be adept at fielding political questions and making the most of a much smaller pool of loans for renewable energy.

Neither EPA Administrator Lisa Jackson nor Energy Secretary Steven Chu has announced plans to leave, but Jackson is rumored to be on her way out, likely to return to her home state of New Jersey. Chu, having been put through the wringer during the Solyndra failure, is expected to go back to research and academic work in California.

Environmental groups are already preparing wish lists of potential successors, although it's still too early to know what the White House is thinking.

For the EPA, most expect an internal hire like deputy administrator Bob Perciasepe or Gina McCarthy, assistant administrator for the Office of Air and Radiation. The Department of Energy seems more likely to recruit an outsider, with former Sen. Byron Dorgan of North Dakota, former Michigan Gov. Jennifer Granholm or Duke Energy CEO and President Jim Rogers, who will retire at the end of next year, among the groups' top choices.

InsideClimate News talked to a half dozen organizations about what they see on the horizon for the two agencies and how the leading candidates might steer the White House towards more serious climate work.

"Climate change is an issue that the president has said is important and that he should see as part of his legacy," said Nat Keohane, vice president of the Environmental Defense Fund. "If there's any meaning to that, he's now got four more years to cement that legacy. ... This is the next big thing on his plate and this is part of his legacy."

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In Obama's first term, the EPA was the largest _ and at times only _ driver of serious environmental work, although some green groups complain it could have moved faster and stronger. With a stack of unfinished and scheduled rules, environmentalists say the agency's agenda is likely set, although there's still room for it to get more aggressive.

"Despite some of the negative rhetoric directed at them, EPA has for the most part been doing what they're required to do by law," said Manik Roy, vice president of strategic outreach for the Center for Climate and Energy Solutions. "I'm not sure it's going to be all that different than it was during the first term. They'll do what was required under law and when they don't, people will sue to make it happen."

The agency's biggest achievement in Obama's first term was the passage of fuel economy standards for passenger vehicles through model year 2025, which are expected to slash 6 billion metric tons, greenhouse gas emissions from the atmosphere.

But two other significant rules saw delays, including long-awaited regulations that would limit greenhouse gas emissions from new power plants. The draft rule was released in March 2012.

In 2011, the administration delayed implementation of a rule limiting ground-level smog until 2013, a move that irked environmentalists _ and reportedly Jackson herself _ who say the rule is necessary for protecting public health. Most expect the review of the National Ambient Air Quality Standards for Ozone to be revived early in the second term, despite concerns about its high cost.

Greenhouse gas regulations for existing large power plants are also likely to be released, even though they will face even more opposition from industry.

Other EPA regulations that are set to be finalized include rules that would limit emissions from industrial boilers, reduce particulate matter and regulate cement makers. A report on the impacts of hydraulic fracturing on water, due in 2013, could lead to new regulations for the controversial process amid a national boom in natural gas production.

These regulations are more likely to be the crux of the government's environmental work than any broad legislative proposals, said Daniel Weiss, a senior fellow for energy and environment at the Center for American Progress.

"When asked about global warming, the president has said we have to work on the economy first," Weiss said. "That reflects this idea that they'll use non-legislative tools and focus on existing authority through the EPA. They've got a lot of unfinished business."

(EDITORS: BEGIN OPTIONAL TRIM)

Many of the green groups would like the agency to be more aggressive now that it has been freed from election-year pressures.

That worries Nicolas Loris, an energy economist with the Heritage Foundation, a conservative think tank that has railed against the EPA rules.

"The incentives to cater to the economy and industry are gone," Loris said. "That could mean stronger regulations ... that are economically damaging. Some of the ones they've proposed are already the most stringent and unprecedented."

Last week the Natural Resources Defense Council issued a plan for EPA to use the Clean Air Act to impose tougher greenhouse gas emission standards on existing polluters that it said could cut carbon pollution by 26 percent by 2020. In a news release, NRDC executive director Peter Lehner said the plan _ which would set state-specific regulations rather than a national target _ shows "how the United States can make big reductions in carbon pollution that drive climate

change."

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With the agency's path largely set, most agree that Jackson's replacement would likely come from within the agency, so the agency can continue its work with minimal disruption.

One of the most commonly mentioned names was Perciasepe, the EPA's current deputy administrator. As Jackson's second-in-command, Perciasepe was deeply involved in the agency's work during Obama's first term, including representing the agency several times in Congressional hearings. He also headed up the EPA's water and air quality departments under President Clinton and previously served as chief operating officer for the Audubon Society.

Also mentioned was McCarthy, assistant administrator for the Office of Air and Radiation, who led the drafting of the EPA's air quality regulations, including the greenhouse gas and fuel economy rules.

"They've been focused on trying to make efforts to reduce the threat of pollution during a severe economic downturn," Weiss said. "That's going to continue."

Another choice would be Mary Nichols, head of the California Air Resources Board. Nichols has managed the buildup to California's cap-and-trade program for greenhouse gas emissions and has been praised for making the Golden State a worldwide leader in environmental work.

But Nichols could face fierce opposition from the business community that sees cap and trade as an economic impediment. And some supporters say she might not even be interested in the job.

(EDITORS: BEGIN OPTIONAL TRIM)

"To the extent that she wants to be in a position of global leadership on climate change, California has that right now," said Roy of the Center for Climate and Energy Solutions. "EPA isn't working to the extent that California is right now and it's hard for me to see her leaving without a greater mandate."

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The Department of Energy, buoyed by $90 billion in economic stimulus money set aside for clean energy programs, expanded its scope in Obama's first term beyond its traditional research and development role.

But its work in clean energy financing also opened the department to accusations of cronyism from the right, topped by the Solyndra scandal. Republicans launched several Congressional investigations into the loans, had Chu testify before the House Oversight Committee and put the loan programs on the chopping block in House budgets.

Most agree that the new DOE secretary will need to have more political chops than Chu, a Nobel Prize-winning scientist, in order to withstand congressional investigations and negotiate with lawmakers to preserve funding for its clean energy investments. The green groups say the new secretary will have vast power to shape how the administration promotes clean energy.

"A lot of what happens at DOE depends on who the secretary is going to be," said CAP's Weiss.

Topping most lists is Dorgan, a Democrat who served on the Energy and Natural Resources Committee and chaired the budget subcommittee overseeing the Energy Department. In the Senate, Dorgan had a reputation for working across the aisle and was a champion of clean energy, although he also supported measures that would help his home state's oil and

natural gas drilling industries.

Granholm would also bring political heft to the department, although her liberal leanings and her talk show on the progressive channel CurrentTV would make her a tough sell to Republicans. In two terms in the Michigan statehouse, Granholm made clean energy a priority. She attracted solar, wind and electric vehicle companies to the state to replace lost automotive jobs and oversaw passage of a Renewable Portfolio Standard mandating that 10 percent of the state's electricity come from renewable sources by 2015.

Other possible candidates include Washington Gov. Christine Gregoire, who has promoted renewable and nuclear energy in her home state, and John Podesta, former chief of staff for President Bill Clinton and CAP's current chair.

Weiss said it's also possible that Obama could select someone with business experience to head the department, a move that would signal the administration's intention to work with the electricity and industrial sector.

Several groups mentioned Rogers of Duke Energy as a possibility, given his close ties to the White House. Rogers, who recently announced his intention to leave the Charlotte, N.C., company in 2013, co-chaired the Democratic National Convention and has been a booster for Obama's renewable energy initiatives.

Whoever gets the job will have to deal effectively with Congress and the White House budget authors, who ultimately will determine how much money the department will have available to invest in renewables.

(EDITORS: BEGIN OPTIONAL TRIM)

"I can't imagine an expansion of any kind of a loan guarantee program," said Loris of the Heritage Foundation. "Given our fiscal situation and some dissent about what the role of DOE is, I think that's an area that could be ripe for spending cuts."

David Foster, executive director of the BlueGreen Alliance, doesn't see the agency moving away from clean energy investments, given that clean energy has been "a powerful piece of the administration's success story."

But EDF's Keohane said there's plenty of room for the Energy Department to maneuver outside of the loan programs. The agency could continue to push energy efficiency standards for appliances or in the electric industry. It could also help craft rules and provide technical assistance as more states and localities eye smart grid technology.

If the loan program is slashed, Roy at the Center of Climate and Energy Solutions, expects the agency to focus on highlighting some of its successful loans and use them as a model to help make clean technology commercially feasible.

"The point of investing in a solar or an electric vehicle plant is not to help one plant advance, it's to get the technology further down the learning curve and cost curve," Roy said.

The agency also could focus on R&D through its national labs and the popular Advanced Research Projects Agency-Energy (ARPA-E) program, which supports high-risk energy technology projects.

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Under the right leadership, Roy said, the Energy Department can play an important role for the White House by promoting both its climate and its economic messages.

"Can we get back to a point where the administration is arguing about the importance of clean energy? That's going to drive things as much as anything," Roy said. "There's room to talk more robustly about the economic future and the role of clean energy. We need to see a return to that."

EPA & Hydraulic Fracturing - Dec. 11 & 12

(InsideClimate News is a nonprofit, non-partisan news organization that covers clean energy, carbon energy, nuclear energy and environmental science. More information is available at http://insideclimatenews.org/.)

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Energy experts say oil and gas drilling can be made cleaner
Brattleboro Reformer - Online

12/11/2012

/ Associated Press

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Energy experts say oil/gas drilling can be made cleaner
WXIN-TV - Online

12/11/2012

gas drilling (December 11, 2012)

8:44 a.m. EST, December 11, 2012

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Energy experts say gas drilling can be made cleaner
Coshocton Tribune - Online

12/11/2012

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It burns cleaner than coal, but side effects of capturing it are a concern

7:43 AM,

Dec 11, 2012

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Charlotte Observer - Online

12/11/2012

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Energy experts: Drilling can be made cleaner
Jamestown Sun - Online, The

12/11/2012

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Energy Experts Say Drilling Can Be Made Cleaner
Product Design & Development - Online

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Energy experts say safe gas drilling possible
Tennessean - Online, The

12/11/2012

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It burns cleaner than coal, but side effects of capturing it are a concern

12:48 AM,

Dec 11, 2012

Scientists estimate that natural-gas wells in Colorado leak 4 percent of their gas, exposing people to benzene and other toxic compounds. / David Zalubowski / File / Associated Press

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Las Vegas Sun - Online

12/11/2012

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Energy experts say drilling can be made cleaner
Winston-Salem Journal - Online

12/11/2012

A combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

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FuelFix.com

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Energy experts say drilling can be made cleaner
DeKalb County Daily Chronicle - Online

12/11/2012

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A combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. (AP file photo)

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Energy experts say drilling can be made cleaner
WTOC-TV - Online

12/11/2012

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WCPO-TV - Online

12/11/2012

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Congressman Hinchey bids farewell; makes stop in Owego, NY
Daily Review - Online

12/11/2012

With offices in Towanda, Sayre, and Troy Pa.

Congressman Hinchey bids farewell; makes stop in Owego, NY

By Wendy Post

(Times-Shamrock Writer)

Published: December 11, 2012

Article Tools

TIOGA COUNTY, N.Y. - On Monday, Congressman Maurice Hinchey (D-Hurley), who served New York's 22nd Congressional District for 20 years, made a stop in Tioga County, N.Y. as part of a farewell tour.

Earlier this year, Hinchey announced his retirement from service that will take effect on Jan. 3, 2013.

At the Tioga County Office Building in Owego, N.Y., which was one of three stops made by Hinchey on Monday - the others being Ithaca, N.Y. and Binghamton, N.Y., he thanked his constituents for supporting him, and expressed gratitude for having the opportunity to serve.

"This is a great place," said Hinchey of Tioga County, N.Y. He continued, "Since 1992 I have tried to be present in this community because it is an area that has faced many challenges - economically and environmentally."

Hinchey talked of some of the challenges, and some of the accomplishments to include 2 million dollars in federal funding he secured for the Owego Riverwalk - a 1,200-foot walkway along the Susquehanna River in Owego's historic downtown commercial district that has provided pedestrian access to the river and helped maintain river banks from flood damage.

Hinchey also spoke of his longtime relationship with Lockheed Martin and his work to maintain and secure federal contracts for what is now Tioga County's largest employer.

Beyond that, the Congressman described his work to establish the Tioga Rural Area Economic Partnership (REAP) program - an initiative that has spurred rural development in the county over the last 13 years while delivering over $20 million in federal and state investments.

But the biggest accomplishment that Hinchey noted, was his leadership in securing the conversion of Route 17 to Interstate 86, which has created hundreds of jobs and injected millions of dollars in federal investments into the region.

"It's the largest federally funded construction project of its kind ... right here," said Hinchey of the transformation. "It has created many jobs over a long period of time," he added.

The conversion of Route 17 to I-86 will eventually provide a federal interstate connection from I-90 at Erie, Pa. to I-87 at Harriman, N.Y. The New York State Department of Transportation is currently planning a major reconstruction project for Prospect Mountain in Binghamton, N.Y., which will create more than 200 jobs.

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Nationally, Hinchey was one of the first and most outspoken members of Congress to oppose former President George Bush's effort to invade Iraq. He subsequently became a forceful critic of ongoing operations within Iraq and led the call for the removal of U.S. forces, which has now occurred.

In regards to natural gas drilling, Hinchey is the primary leader in Congress to protect drinking water and the environment from the risks of hydraulic fracturing. He is a co-author of the FRAC Act, which would mandate public disclosure of chemicals used in fracking fluid and allow the EPA to regulate fracking activities under the Safe Drinking Water Act.

In 2009, Hinchey authored the appropriations language that initiated the EPA's current national study on hydraulic fracturing. This is the first comprehensive and independent analysis of the risks that hydraulic fracturing poses to drinking water.

But in spite of these accomplishments, Hinchey experienced some troubles over the last two years to include a cancer diagnose, and subsequent chemotherapy and treatment.

Hinchey spoke to constituents in Tioga County on Monday about his first surgery in July of 2011, and how he has faced many challenges, physically. "I'm struggling to get along," Hinchey stated on Monday.

"I'm trying to get back to where I used to be," he added.

Following Hinchey's announcement in January 2012 that he would be retiring, a re-districting followed. Most of Tioga County is now included in the new 23rd Congressional District, represented by Congressman Tom Reed, while a smaller portion of Tioga County remains in the 22nd Congressional District, which is represented by Congressman Richard Hanna and includes most of Nichols and a section of Owego.

And although Tioga County residents have new representation within these districts, many view the retirement of Hinchey as a loss for the community.

"We got a lot done here because of him [Hinchey]," stated former Owego Mayor Ed Arrington, who worked with Hinchey to gain funding and construct Owego's Riverwalk.

"I consider him a friend," Arrington added, "he's one of the few that I felt comfortable with calling if I needed something. My Congressman was the head of the pack."

Diane Molinari, a Tioga County resident, also stated that Hinchey's retirement will be a huge loss for the area.

"He was always working to get things done for us," said Molinari.

"He was always here for us, and fighting to get what we needed," she added. "He represented us well."

And for Hinchey, it was hard to say goodbye - although he promised he will not forget Tioga County, New York and will be back.

"Despite all the battles won and lost, I wanted to be here today to say thank you to all of you who stood with me as we took on the big fights," said Hinchey.

He continued, "For these reasons and many others, I am very proud to have represented you in Congress, proud to call you my friends, and proud of what we have accomplished together. You stood with me every step of the way. For that I thank you from the bottom of my heart. I look back on my life in public service proud of what we accomplished together,

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regretful that I could not do more and hopeful that you will pick up where I left off, and continue the fight for this region and for what is right."

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Energy experts say drilling can be made cleaner
Daily Camera - Online, The

12/11/2012

FILE - In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. (AP Photo/James MacPherson, file) (JAMES MACPHERSON)

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Evidence that gas drilling air pollution can be managed - but that more work may still need to be done - comes from north Texas, where the shale gas boom began around Fort Worth about 10 years ago.

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Texas, a heavy gas drilling area, for violating ozone standards. Industry groups and the state have argued that the finding was based on faulty science.

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US energy experts say drilling can be made cleaner
Star-Gazette - Online

12/11/2012

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Tennessean - Online, The

12/11/2012

It burns cleaner than coal, but side effects of capturing it are a concern

Scientists estimate that natural-gas wells in Colorado leak 4 percent of their gas, exposing people to benzene and other toxic compounds. / David Zalubowski / File / Associated Press

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Energy experts say drilling can be made cleaner
Oakland Press - Online, The

12/11/2012

By KEVIN BEGOS and SETH BORENSTEIN

Associated Press

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Energy experts say drilling can be made cleaner
Houston Chronicle - Online

12/11/2012

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Energy experts say drilling can be made cleaner
Middletown Journal - Online

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FILE - In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. (AP Photo/James MacPherson, file)

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The answer appears to be that drilling can be safe or it can be dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

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The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly that some companies and some regulators can't seem to get ahead of the problems, which could ultimately cost billions of dollars to remedy.

The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn't been enough research.

Some environmentalists say if leaks and pollution can be minimized, the boom has benefits, since gas burns much cleaner than coal, emitting half the carbon dioxide.

Al Gore told The Associated Press that it's "not irresponsible" to look at gas as a short-term substitute for coal-fired electricity. But Gore added that the main component of gas, methane, is a more potent heat-trapping greenhouse gas than CO2. That means that if large quantities leak, the advantage over coal disappears, the former vice president said.

In Colorado, the National Oceanic and Atmospheric Administration estimated that 4 percent of methane was leaking from wells, far more than previously estimated, and that people who live near production areas may be exposed to worrisome levels of benzene and other toxic compounds present in oil and gas.

Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of new construction.

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Gore added that when companies capture leaking methane, they end up with more to sell. "So there's an economic

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Another major source of worry is the industry's practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. Over the past five years, the U.S. has increased the amount of flared and wasted gas more than any other nation, though Russia still burns off far more than any other country.

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In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren't enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year. And officials in North Dakota said last month that the situation there might not be completely solved until the end of the decade.

NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains, and especially in snowy areas.

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But NOAA researchers found that when there's heavy snowfall, the sun passes through the stew, then bounces off the snow and heats it again on the way back up. In some cases, smog in remote areas has spiked to levels higher than those in New York or Los Angeles.

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Evidence that gas drilling air pollution can be managed — but that more work may still need to be done — comes from north Texas, where the shale gas boom began around Fort Worth about 10 years ago.

Mike Honeycutt, director of toxicology for the Texas Commission on Environmental Quality, said that in the early years of the boom, people complained about excessive pollution. Regulators started using special hand-held cameras to pinpoint pollution sources and found some sites with high levels of benzene and other volatile organic compounds.

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EPA & Hydraulic Fracturing - Dec. 11 & 12

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Jamestown Sun - Online, The

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By:

Kevin Begos and Seth Borenstein, Associated Press, The Jamestown Sun

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Business

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Topics: Gas Drilling-Air Pollution

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By KEVIN BEGOS and SETH BORENSTEIN Associated Press

First Posted: December 10, 2012 - 8:48 pm

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Photos:

FILE - In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. (AP Photo/James MacPherson, file)

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Energy experts say drilling can be made cleaner
Columbia Missourian - Online

12/11/2012

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Tuesday, December 11 2012 | 1:49 a.m. CST

By KEVIN BEGOS and SETH BORENSTEIN, Associated Press

PITTSBURGH

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The answer appears to be that drilling can be safe or it can be dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

"It's like a vehicle. Some cars drip oil," said Russell Schnell, deputy director of the federal Earth System Research Laboratory in Boulder, Colo. "You have wells that are absolutely tight. And you have other places where a valve gives out, and you have huge leaks."

The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly that some companies and some regulators can't seem to get ahead of the problems, which could ultimately cost billions of dollars to remedy.

The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn't been enough research.

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Denver Post - Online, The

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Energy experts say drilling can be made cleaner
Tribune - Online

12/11/2012

Some energy experts say drilling can be done responsibly; some companies better than others

By KEVIN BEGOS and SETH BORENSTEIN Associated Press

First Posted: December 10, 2012 - 8:48 pm

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Photos:

FILE - In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. (AP Photo/James MacPherson, file)

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Energy experts say drilling can be made cleaner
Rome News-Tribune - Online

12/11/2012

by

KEVIN BEGOS and SETH BORENSTEIN,Associated Press

Associated Press

6 hrs ago | 331 views | 0

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Energy experts say drilling can be made cleaner
KHOU-TV - Online

12/11/2012

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Associated Press

Posted on December 11, 2012 at 1:00 AM

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The answer appears to be that drilling can be safe or it can be dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

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The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly that some companies and some regulators can't seem to get ahead of the problems, which could ultimately cost billions of dollars to remedy.

The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn't been enough research.

Some environmentalists say if leaks and pollution can be minimized, the boom has benefits, since gas burns much cleaner than coal, emitting half the carbon dioxide.

Al Gore told The Associated Press that it's "not irresponsible" to look at gas as a short-term substitute for coal-fired electricity. But Gore added that the main component of gas, methane, is a more potent heat-trapping greenhouse gas than CO2. That means that if large quantities leak, the advantage over coal disappears, the former vice president said.

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Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of new construction.

"I think it's totally fixable," Schnell said. "At least the bigger companies, they are really on top of this."

Gore added that when companies capture leaking methane, they end up with more to sell. "So there's an economic incentive to capture it and stop the leaking," he said.

Another major source of worry is the industry's practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. Over the past five years, the U.S. has increased the amount of flared and wasted gas more than any other nation, though Russia still burns off far more than any other country.

In some places, energy companies haven't invested in the infrastructure needed to capture and process the gas because the oil is more valuable.

In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren't enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year. And officials in North Dakota said last month that the situation there might not be completely solved until the end of the decade.

NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains, and especially in snowy areas.

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Evidence that gas drilling air pollution can be managed - but that more work may still need to be done - comes from north Texas, where the shale gas boom began around Fort Worth about 10 years ago.

Mike Honeycutt, director of toxicology for the Texas Commission on Environmental Quality, said that in the early years of the boom, people complained about excessive pollution. Regulators started using special hand-held cameras to pinpoint pollution sources and found some sites with high levels of benzene and other volatile organic compounds.

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The Environmental Protection Agency isn't completely convinced. This year the federal agency cited Wise County in north Texas, a heavy gas drilling area, for violating ozone standards. Industry groups and the state have argued that the finding was based on faulty science.

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Energy experts say drilling can be made cleaner
Jamestown Sun - Online, The

12/11/2012

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Energy experts say drilling can be made cleaner
San Francisco Chronicle - Online

12/11/2012

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Energy experts say drilling can be made cleaner
Seattle Post-Intelligencer

12/11/2012

KEVIN BEGOS, Associated Press, By KEVIN BEGOS and SETH BORENSTEIN, Associated Press

FILE - In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. Photo: James MacPherson / AP

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Energy experts say drilling can be made cleaner
WHNS-TV - Online

12/11/2012

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The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly that some companies and some regulators can't seem to get ahead of the problems, which could ultimately cost billions of dollars to remedy.

The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn't been enough research.

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Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of new construction.

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Energy experts say drilling can be made cleaner
NewsOK.com (Oklahoman) - Online

12/11/2012

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Energy experts say drilling can be made cleaner
Dayton Daily News - Online

12/11/2012

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Experts: Drilling can get cleaner
Times Recorder - Online

12/11/2012

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Gas emits less CO2, but its side effects cause concern

12:21 AM,

Dec 11, 2012

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The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change, as well as the possible health consequences from breathing smog, soot and other pollutants.

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Another major source of worry is the industry s practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. In some places, energy companies haven t invested in the infrastructure needed to capture

and process the gas because the oil is more valuable.

In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren t enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year. And officials in North Dakota said last month that the situation there might not be completely solved until the end of the decade.

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Energy experts say drilling can be made cleaner
KZTV-TV - Online

12/11/2012

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Updated: 8:54 p.m. Monday, Dec. 10, 2012 | Posted: 8:48 p.m. Monday, Dec. 10, 2012

Energy experts say drilling can be made cleaner

Associated Press

FILE - In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. (AP Photo/James MacPherson, file)

By KEVIN BEGOS

The Associated Press

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Factors determine drilling pollution
Abilene Reporter-News - Online

12/11/2012

By Kevin Begos and Seth Borenstein Associated Press

Posted December 10, 2012 at 11:21 p.m.

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Experts: Drilling can get cleaner
Bucyrus Telegraph-Forum - Online

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Energy experts say drilling can be made cleaner |about 1 hour
Ashland Times-Gazette - Online

12/11/2012

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By KEVIN BEGOS and SETH BORENSTEIN

Associated Press Published: December 11, 2012 12:02AM

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The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn't been enough research.

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Al Gore told The Associated Press that it's "not irresponsible" to look at gas as a short-term substitute for coal-fired electricity. But Gore added that the main component of gas, methane, is a more potent heat-trapping greenhouse gas than CO2. That means that if large quantities leak, the advantage over coal disappears, the former vice president said.

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Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of new construction.

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Gore added that when companies capture leaking methane, they end up with more to sell. "So there's an economic incentive to capture it and stop the leaking," he said.

Another major source of worry is the industry's practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. Over the past five years, the U.S. has increased the amount of flared and wasted gas more than any other nation, though Russia still burns off far more than any other country.

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NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains, and especially in snowy areas.

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Energy experts say drilling can be made cleaner
Caribbean Business - Online

12/11/2012

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By : The Associated Press

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Journal Star - Online

12/11/2012

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Greenville News - Online

12/11/2012

Written by

KEVIN BEGOS and SETH BORENSTEIN

Associated Press

Filed Under

Entrepreneurs

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Rocket News

12/11/2012

Written on December 10, 2012 by Editor - Science News

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EPA & Hydraulic Fracturing - Dec. 11 & 12

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EPA & Hydraulic Fracturing - Dec. 11 & 12

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18° Clear | Tulsa Weather

Updated: 7:54 p.m. Monday, Dec. 10, 2012 | Posted: 7:48 p.m. Monday, Dec. 10, 2012

Energy experts say drilling can be made cleaner

Associated Press

FILE - In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well on Aug. 19, 2008, in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants. (AP Photo/James MacPherson, file)

By KEVIN BEGOS

The Associated Press

PITTSBURGH -

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The answer appears to be that drilling can be safe or it can be dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

"It's like a vehicle. Some cars drip oil," said Russell Schnell, deputy director of the federal Earth System Research Laboratory in Boulder, Colo. "You have wells that are absolutely tight. And you have other places where a valve gives out, and you have huge leaks."

The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly that some companies and some regulators can't seem to get ahead of the problems, which could ultimately cost billions of dollars to remedy.

The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn't been enough research.

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Al Gore told The Associated Press that it's "not irresponsible" to look at gas as a short-term substitute for coal-fired electricity. But Gore added that the main component of gas, methane, is a more potent heat-trapping greenhouse gas than CO2. That means that if large quantities leak, the advantage over coal disappears, the former vice president said.

In Colorado, the National Oceanic and Atmospheric Administration estimated that 4 percent of methane was leaking from wells, far more than previously estimated, and that people who live near production areas may be exposed to worrisome levels of benzene and other toxic compounds present in oil and gas.

Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of new construction.

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WVEC-TV - Online

12/11/2012

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Energy experts say drilling can be made cleaner
Stow Sentry - Online

12/11/2012

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MSNBC - Online

12/11/2012

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Prasad Kasibhatla, a professor of environmental chemistry at Duke University, said that controlling gas drilling pollution is "technically solvable" but requires close attention by regulators.

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Energy experts : Drilling can be made cleaner
Observer-Reporter - Online

12/11/2012

Published Dec 11, 2012 at 6:00 am (Updated Dec 11, 2012 at 12:09 am)

In this Aug. 19, 2008 file photo, a combine cuts durum near an oil well in Tioga, N.D. The worries about what drilling does to the air are both global and local, with scientists concerned about the effects on climate change as well as the possible health consequences from breathing smog, soot and other pollutants.

(Associated Press)

PITTSBURGH – In the Colorado mountains, a spike in air pollution has been linked to a boom in oil and gas drilling. About 800 miles away on the plains of north Texas, there's a drilling boom, too, but some air pollution levels have declined. Opponents of drilling point to Colorado and say it's dangerous. Companies point to Texas and say drilling is safe.

The answer appears to be that drilling can be safe or it can be dangerous. Industry practices, enforcement, geography and even snow cover can minimize or magnify air pollution problems.

"It's like a vehicle. Some cars drip oil," said Russell Schnell, deputy director of the federal Earth System Research Laboratory in Boulder, Colo. "You have wells that are absolutely tight. And you have other places where a valve gives out, and you have huge leaks."

The good news, nearly all sides agree, is that the technology exists to control methane gas leaks and other air pollution associated with drilling. The bad news is that the industry is booming so rapidly that some companies and some regulators can't seem to get ahead of the problems, which could ultimately cost billions of dollars to remedy.

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Hydraulic fracturing, or fracking, has made it possible to tap into deep reserves of oil and gas but has also raised concerns about pollution. The industry and many federal and state officials say the practice is safe when done properly, but environmental groups and some scientists say there hasn't been enough research.

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EPA & Hydraulic Fracturing - Dec. 11 & 12

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"I think it's totally fixable," Schnell said. "At least the bigger companies, they are really on top of this."

Gore added that when companies capture leaking methane, they end up with more to sell. "So there's an economic incentive to capture it and stop the leaking," he said.

Another major source of worry is the industry's practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. Over the past five years, the U.S. has increased the amount of flared and wasted gas more than any other nation, though Russia still burns off far more than any other country.

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In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren't enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year. And officials in North Dakota said last month that the situation there might not be completely solved until the end of the decade.

NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains, and especially in snowy areas.

Ozone, the main component in smog, typically forms when sunlight "cooks" a low-lying stew of chemicals such as benzene and engine exhaust. Normally, the process doesn't happen in cold weather.

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Evidence that gas drilling air pollution can be managed – but that more work may still need to be done – comes from north Texas, where the shale gas boom began around Fort Worth about 10 years ago.

Mike Honeycutt, director of toxicology for the Texas Commission on Environmental Quality, said that in the early years of the boom, people complained about excessive pollution. Regulators started using special hand-held cameras to pinpoint pollution sources and found some sites with high levels of benzene and other volatile organic compounds.

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EPA & Hydraulic Fracturing - Dec. 11 & 12

In Focus: Oil, gas, and managing the damages
Portland Press Herald - Online

12/11/2012

Tuesday, December 11, 2012

Life & Culture

MaineToday.com

12:00 AM

In Focus: Oil, gas, and managing the damages

There are ways to control waste and pollution, but producers and regulators too often fall behind.

By KEVIN BEGOS and SETH BORENSTEIN The Associated Press

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A combine cutting durum wheat near an oil well in Tioga, N.D. demonstrates the intersection of energy production and the environment. Critics of booming gas and oil production are concerned about the effects that pollution has on climate change generally, but also on the possible health consequences from breathing smog, soot and other pollutants.

2008 Associated Press File Photo

Select images available for purchase in the

Maine Today Photo Store

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LEAKS NULLIFY ADVANTAGE

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EPA & Hydraulic Fracturing - Dec. 11 & 12

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Send question/comment to the editors

EPA & Hydraulic Fracturing - Dec. 11 & 12

Energy experts say drilling can be made cleaner
Review - Online, The

12/11/2012

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EPA & Hydraulic Fracturing - Dec. 11 & 12

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EPA & Hydraulic Fracturing - Dec. 11 & 12

Energy experts say drilling can be made cleaner
Twinsburg Bulletin - Online

12/11/2012

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Energy experts say drilling can be made cleaner
Reading Eagle - Online

12/11/2012

Some energy experts say drilling can be done responsibly; some companies better than others

PITTSBURGH -

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Across the industry, the technology for stopping leaks can be as simple as fixing seals and gaskets, or it can involve hundreds of millions of dollars of new construction.

"I think it's totally fixable," Schnell said. "At least the bigger companies, they are really on top of this."

Gore added that when companies capture leaking methane, they end up with more to sell. "So there's an economic incentive to capture it and stop the leaking," he said.

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Another major source of worry is the industry's practice of burning off, or flaring, natural gas that comes out of the ground as a byproduct of oil drilling. Over the past five years, the U.S. has increased the amount of flared and wasted gas more than any other nation, though Russia still burns off far more than any other country.

In some places, energy companies haven't invested in the infrastructure needed to capture and process the gas because the oil is more valuable.

In the Bakken Shale oil fields of North Dakota, for example, about 30 percent of the natural gas is flared off because there aren't enough pipelines yet to carry it away. The amount of gas wasted in the state is estimated at up to $100 million a year. And officials in North Dakota said last month that the situation there might not be completely solved until the end of the decade.

NOAA scientists also say natural gas production has contributed to unusual wintertime smog in the West, particularly in regions surrounded by mountains, and especially in snowy areas.

Ozone, the main component in smog, typically forms when sunlight "cooks" a low-lying stew of chemicals such as benzene and engine exhaust. Normally, the process doesn't happen in cold weather.

But NOAA researchers found that when there's heavy snowfall, the sun passes through the stew, then bounces off the snow and heats it again on the way back up. In some cases, smog in remote areas has spiked to levels higher than those in New York or Los Angeles.

In open regions that are more exposed to wind, the ozone vanishes, sometimes within hours or a day. But in Utah basins it can linger for weeks, Schnell said.

Evidence that gas drilling air pollution can be managed but that more work may still need to be done comes from north Texas, where the shale gas boom began around Fort Worth about 10 years ago.

Mike Honeycutt, director of toxicology for the Texas Commission on Environmental Quality, said that in the early years of the boom, people complained about excessive pollution. Regulators started using special hand-held cameras to pinpoint pollution sources and found some sites with high levels of benzene and other volatile organic compounds.

"It was a maintenance issue. They were in such a hurry, and they were drilling so fast, they were not being as vigilant as they should have been," Honeycutt said. "So we passed new rules that made them take more notice."

Honeycutt said the cameras, which cost about $100,000 each, have revolutionized the way inspectors monitor sites. Texas has also installed nine 24-hour air monitoring stations in the drilling region around Fort Worth, and more are on the way. Now, he said, even as drilling has increased, summer ozone levels have declined.

In 1997 there were only a few hundred shale gas wells in the Fort Worth area and the summertime ozone level hit 104 parts per billion, far above the national standard then of 85. By 2012 the number of wells had risen to about 16,000, but preliminary results show the ozone level was 87 last summer.

There's still room for improvement, Honeycutt said, but the trend is clear, since the monitoring is no longer showing worrisome levels of benzene, either.

The Environmental Protection Agency isn't completely convinced. This year the federal agency cited Wise County in north Texas, a heavy gas drilling area, for violating ozone standards. Industry groups and the state have argued that the finding was based on faulty science.

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So far, NOAA scientists say they haven't found signs that gas or oil drilling is contributing to a global rise in methane.

"Not the mid-latitudes where the drilling is being done, which is interesting," said James Butler, head of global monitoring for NOAA.

The EPA has passed new rules on oil and gas emissions that are scheduled to go into effect in 2015, and in 2012 it reached legal settlements that will require companies to spend more than $14 million on pollution controls in Utah and Wyoming. Colorado, Texas and other states have passed more stringent rules, too.

Carlton Carroll, a spokesman for the American Petroleum Institute, a lobbying group for the oil and gas industry, pointed out that many companies started developing the equipment to limit methane and other pollution before the EPA rule.

"API is not opposed to controls on oil and gas operations so long as the controls are cost-effective, allow sufficient lead time and can be implemented safely," Carroll said in an email, adding that the industry has requested some technical clarifications to the rule and is working with EPA on those.

Prasad Kasibhatla, a professor of environmental chemistry at Duke University, said that controlling gas drilling pollution is "technically solvable" but requires close attention by regulators.

"One has to demonstrate that it is solved, and monitored," he said.